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PTO/SB/21 (6-98)

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	09/944,902 09/994002
	Filing Date	11/06/2001
	First Named Inventor	Glen Roeters
	Group Art Unit	2827
	Examiner Name	Mitchell, J.
Total Number of Pages in This Submission	Attorney Docket Number	DENSE-049A

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ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition Routing Slip (PTO/SB/69 and Accompanying Petition) <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Small Entity Statement <input type="checkbox"/> Request for Refund	<input type="checkbox"/> After Allowance Communication to Client <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): Return receipt postcard
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Firm or Individual Name	Mark B. Garred STETINA BRUNDA GARRED & BRUCKER
Signature	<i>[Signature]</i>
Date	5/31/02

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: 5/31/2002			
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Case No.: DENSE-049A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Roeters et al.

Group No.: 2827

Serial No.: 09/944,002

Examiner: Mitchell, J

Filed: Nov. 6, 2001

For: THERMAL RING USED IN 3-D
STACKING

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AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

Dear Sir:

The foregoing Amendment and remarks are responsive to the Office Action mailed

4/02/2002.

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IN THE CLAIMS:

1. A chip stack comprising:

at least two carrier layers, each of the carrier layers including a first conductive pattern disposed thereon;

at least one thermal ring having a second conductive pattern disposed thereon and including at least two unimpeded flow channels disposed therein, the thermal ring being disposed between the carrier layers, with the second conductive pattern being electrically connected to the first conductive pattern of each of the carrier layers; and

at least two integrated circuit chips electrically connected to respective ones of the

A1.